Claims

1.   A method for maintaining SIP contact addresses using event subscription:

5   receiving, by a SIP proxy user agent (UA), a non-SIP registration request from a remote unit;

sending, in response to the registration request, a combined registration and event subscription message for the remote unit to a SIP registrar; and

10   receiving, from the SIP registrar, a notification that indicates that an old contact address based on the combined registration and event subscription message is being replaced by a new contact address for the remote unit.

15   2.   The method of claim 1 wherein the combined registration and event subscription message comprises a SIP REGISTER message and an indication of an event to which the SIP proxy UA subscribes.

3.   The method of claim 2 wherein the event to which the SIP proxy

20   UA subscribes is contact address changes.

4.   The method of claim 2 wherein the combined registration and event subscription message comprises a SIP REGISTER message and a SIP SUBSCRIBE message Event header.

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5.   The method of claim 1 wherein the notification further indicates the new contact address for the remote unit.

6.   The method of claim 5 wherein the notification comprises a SIP

30   NOTIFY message.

7.   A method for maintaining SIP contact addresses using event subscription:

receiving a combined registration and event subscription message for a remote unit from a first SIP proxy user agent (UA);

5   storing, as contact information for the remote unit, a first contact address based on the combined registration and event subscription message;

in response to receiving the combined registration and event subscription message, subscribing the first SIP proxy UA to the contact

10   information for the remote unit;

receiving a registration message for the remote unit from a second SIP proxy UA after receiving the combined registration and event subscription message;

updating the contact information with a second contact address

15   based on the registration message; and

notifying the first SIP proxy UA that the contact information for the remote unit has changed.

8.   The method of claim 7 wherein the combined registration and event

20   subscription message comprises a SIP REGISTER message and an indication of an event to which the SIP proxy UA subscribes.

9.   The method of claim 8 wherein the combined registration and event subscription message comprises a SIP REGISTER message and a SIP

25   SUBSCRIBE message Event header.

10.   The method of claim 7 wherein notifying comprises notifying the first SIP proxy UA of the new contact address for the remote unit.

11.   The method of claim 10 wherein notifying comprises notifying the first SIP proxy UA that the second contact address has replaced the first contact address.

5   12.   The method of claim 11 wherein the notification comprises a SIP NOTIFY message.

13.   The method of claim 7 wherein the registration message comprises a combined registration and event subscription message.

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14.   A radio access network (RAN) component comprising:

a wireless network interface; and

a SIP proxy user agent, communicatively coupled to the wireless network interface, adapted to

5   receive via the wireless network interface a non-SIP registration request from a remote unit,

send, in response to the registration request, a combined registration and event subscription message for the remote unit to a SIP registrar, and

10   receive, from the SIP registrar, a notification that indicates that an old contact address based on the combined registration and event subscription message is being replaced by a new contact address for the remote unit.

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15.   A SIP registrar comprising:

a SIP location data base; and

a SIP registration processor, communicatively coupled to the SIP registration data base, adapted to

5   receive a combined registration and event subscription message for a remote unit from a first SIP proxy user agent (UA),

store in the SIP location data base, as contact information for the remote unit, a first contact address based on the combined registration and event subscription message,

10   in response to receiving the combined registration and event subscription message, subscribe the first SIP proxy UA to the contact information for the remote unit,

receive a registration message for the remote unit from a second SIP proxy UA after receiving the combined registration and event

15   subscription message,

update the contact information with a second contact address based on the registration message, and

notify the first SIP proxy UA that the contact information for the remote unit has changed.

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